A2 CONCLUD

protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

A3

12. (Amended) The means for cell-free protein synthesis according to claim 10, wherein the synthesis is continuous, and implements are selected from addition, storage, exchange and discharge, regarding a factor chosen from at least mRNA, a template for synthesis reaction, enzyme for energy recycling system, substrate, and energy source.

Please add the following new claims:

A4

--15. A preparation which contains cell extract for cell-free protein synthesis according to claim 2, wherein the inhibition of the own reaction of protein synthesis excluding the systems serves as controlling deadenination of ribosome.

16. A preparation which contains cell extract for cell-free protein synthesis according to claim 3, wherein the inhibition of the own reaction of protein synthesis excluding the systems serves as controlling deadenination of ribosome.

17. A preparation which contains cell extract for cell-free protein synthesis according to claim 2, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

18. A preparation which contains cell extract for cell-free protein synthesis according to claim 3, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

19. A preparation which contains cell extract for cell-free protein synthesis according to claim 4, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

20. A preparation which contains cell extract for cell-free protein synthesis according to claim 5, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

21. A preparation which contains cell extract for cell-free protein synthesis according to claim 6, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

22. The means for cell-free protein synthesis according to claim 11, wherein the synthesis is continuous, and implements are selected from addition, storage, exchange and discharge, regarding a factor chosen from at least mRNA, a template for synthesis reaction, enzyme for energy recycling system, substrate, and energy source.

23. A method of synthesizing protein using the preparation prepared according to claim 1.

24. A method of synthesizing protein using the preparation prepared according to claim 2.

25. A method of synthesizing protein using the preparation prepared according to claim 3.

26. A method of synthesizing protein using the preparation prepared according to claim 4.

27. A method of synthesizing protein using the preparation prepared according to claim 5.

28. A method of synthesizing protein using the preparation prepared according to claim 6.

29. A method of synthesizing protein using the preparation prepared according to claim 13.

30. A protein synthesized by the method of claim 23. --

A 4 CONCLD.

PCT34 amendment

What is claimed is

1. (After amendment) A preparation which contains cell extract for cell-free protein synthesis prepared by substantially excluding systems involving in inhibiting synthesis reaction of said own protein and for characterized in that an endosperm which contaminates an extract of embryo, is completely removed therefrom.

2. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to Claim 1, wherein the method to exclude systems involving in the inhibition of reaction of its own protein synthesis is characterized by treating extract of embryo using nonionic surfactant as a solvent.

3. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to Claim 2, wherein the method to treat extract of embryo using nonionic surfactant is characterized by using acoustic wave to continue until washing do not become turbid.

4. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to any one of Claim 1, 2 or 3 wherein the inhibition of the own reaction of protein synthesis excluding the systems serves as controlling deadenination of ribosome.

5. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to Claim 1, wherein a substance is added which controls

deadenination of ribosome characterized by excluding systems involving in the inhibition of its own reaction of protein synthesis.

6. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to Claim 1, wherein the embryo is treated by adding nonionic surfactant and a substance controlling deadenination of ribosome.

7. (After amendment) A preparation which contains cell extract for cell-free protein synthesis according to any one of Claims 1 - 6, characterized by formulating a substance containing cell extract for cell-free protein synthesis into a preparation which can be stored in room temperature and which maintains biological functions of said cell extract.

8. (After amendment) A preparation containing cell extract for cell-free protein synthesis according to Claim 7, wherein the preparation is in dried form.

9. (After amendment) A preparation containing cell extract for cell-free protein synthesis according to Claim 8, wherein the preparation is formulated by freeze-drying.

10. (After amendment) A means for cell-free protein synthesis in a system which is capable of recovering the synthesized product protein, characterized in that said system uses a preparation containing cell-extract for cell-free protein synthesis, a reaction vessel used in the system is prepared with a carrier capable of molecular

sieving, a material substance pertaining to the system is developed with the carrier as a moving phase, and during the development the reaction of cell-free protein synthesis is carried out, thereby obtaining the product.

11. (After amendment) The means for cell-free protein synthesis according to Claim 10, wherein the reaction vessel used in the system is prepared by dialysis, the material substance pertaining to the cell-free protein synthesis system and the product of the cell-free protein synthesis reaction are separated through dialysis membrane, and the synthesized protein can be recovered.

12. (After amendment) The means for cell-free protein synthesis according to claim 10 or 11, wherein the synthesis is continuous, and implements are selected from addition, storage, exchange and discharge, regarding a factor chosen from at least mRNA, a template for synthesis reaction, enzyme for energy recycling system, substrate, and energy source.

13. (After amendment) A preparation containing cell-extract for cell-free protein synthesis, characterized in that the preparation contains extract of wheat embryo obtained after subjecting a treatment including a process for washing the wheat embryo with nonionic surfactant to completely remove any endosperm contaminants from the wheat embryo, that a deadenination rate of the wheat extract is 0.1 % or lower, the dry preparation of the wheat embryo extract maintains stability under room temperature; and that in a continuous cell-free protein synthesis involving a replenishment of the substrate and others for protein synthesis using said

wheat extract, the synthesis shows constant performance even in 24th hour after starting the synthesis and shows at least 1 mg/ml or higher in synthesis level in said 24th hour.

14. (After amendment) The means for continuous cell-free protein synthesis according to Claim 12, wherein an apparatus comprises a structure including an impregnation vessel and a lid mounted to hermetically seal the vessel, and supports a channel with inlet to introduce into the apparatus substrate and/or energy source and outlet leading to chamber for outer solution for dialysis in impregnation vessel, a channel with inlet existing in the solution chamber in impregnation vessel as a measure to discharge metabolite, in outer dialysis solution and outlet leading to outside of the apparatus, and inlet to introduce mRNA and/or enzyme for energy recycling system and a medium having a function of dialysis membrane existing in a solution chamber for outer solution for dialysis in the impregnation vessel.